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22. NOTES ON *TYLOTOTRITON VERRUCOSUS* ANDERSON: A CRITICALLY ENDANGERED NEWT FROM MANIPUR

The newt *Tylototriton verrucosus* was described by Anderson in 1871 from a specimen collected from Yunan region. The species is locally known as Lengva (Tangkhu) and Hangoi mamei panba (Manipuri). It is the only species of tailed amphibian recorded so far from India. Fully mature males measure 145-170 mm, while females measure 150-200 mm. The head is as broad as it is long and has an inverted V-shaped prominent ridge. The limbs are short, with four digits in the forelimbs and five digits in the hind limbs. The tail with its upper margin sharp edged is as long as the head and body together. The legs appear to be weak and their movement on land is sluggish. The body is dark brown above with a tubercle, two rows of porous knob-like prominent glands on either side of the vertebral ridge. Each row has 15-20 glands. The anal opening is a longitudinal slit with a slightly swollen rim. The species does not show sexual dimorphism, but during the breeding season females can be easily recognised by their distended body and swollen vent.

Habitat: Their favourite habitats are pools, ditches, ponds and paddy fields, and they have a habit of hiding under rotten leaves, in rock pools, roots and dead tree trunks near water. They are also found in small streams fringed with vegetation. At the onset of monsoon, they come out of their hiding places to the water for mating. They are active throughout the monsoon until winter sets in. During winter, they hide in the burrows of rats and in other safe places till the next monsoon. The eggs are laid on water bodies and tadpoles hatch out within a few days, maturing within a month or two. The species was found at high altitude where the climate is cold.

Distribution: Nepal, Sikkim, Darjeeling and Arunachal Pradesh. In Manipur, it is found only in Ukhrul and Senapati districts. In the late eighties, this species was abundant in Ukhrul and Mao areas. In Ukhrul district, it used to be found in places like Ngaimu, Pushing, Ukhrul, Hundung, Phungcham, Shihai Shiroi, Khangkhui, and Nungshong. But recent surveys

in these areas show that the species is now much reduced. In Mao area in Senapati district, as reported by the local people, it is hardly seen nowadays.

Tylototriton verrucosus is listed under the Indian Wildlife (Protection) Act, 1972 Schedule I as an endangered species, and also in the Wildlife Protection Act, Manipur Rules 1974 as a protected species. Increasing human demands on forest resources and cultivable land, fishing with chemicals have contributed to the diminishing

population throughout its natural habitats in Manipur. It is also eaten by the locals in the area. No effective action has been taken to check the reduction of Lengva in Manipur, and if no attempt is made to preserve the species, this only tailed amphibian will soon become extinct in this State.

July 5, 2000

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23. NEW RECORD OF CYPRINID FISH *LABEO BATA* (HAMILTON) FROM CHINDWIN DRAINAGE

The fish fauna of Manipur is of great interest as it is drained by two important rivers, the Barak-Brahmaputra and Chindwin-Irrawaddy systems. The western half of the state is drained by the Barak-Brahmaputra system, whereas the Chindwin-Irrawaddy system drains the eastern half, including the central valley. The Chindwin-Irrawaddy system is entirely separated by high mountain ranges from the watersheds of the Barak-Brahmaputra (Chaudhuri 1919). Chatrickong river is formed by two streams, namely Sanalok and Khunukong. Khunukong originates from the western part of the majestic Shiroi peak and flows southeast to join Sanalok, while Sanalok originates at the foothills of the highest peak Khayangphung (2,833 m) of the district which lies near the Indo-Myanmar border, and flows southwards to meet Khunukong. The river then flows as Chatrickong for about 5 km, and enters Myanmar where it is called Nam Panga (Myanmarese) and flows to the east and then turns southward to meet the Chindwin.

Jayaram (1981, 1999), Talwar and Jhingran (1991) do not mention the availability of this fish from the Chindwin drainage of Myanmar. Jayaram (1981) recorded 26 valid species from southeast Asia. Sen (1985) reported the fish from Assam and the northeastern states

of India that include Brahmaputra drainage, but did not mention the specific locality of the collection. Burman (1988) recorded it from Tripura. During our ichthyofaunal collection from 1996-98, five specimens were collected from the Chatrickong river. The species is reported for the first time from Chindwin drainage.

The fish were collected with the help of cast net, side-tracking of rivers and also by 'khaishang' — a unique indigenous method of catching migratory fishes on their way back from smaller hillstreams after breeding. This technique is commonly used in southeastern Ukhrul district in Manipur. The fish were preserved in 10% formaline. The types have been deposited in the Manipur University Museum of Fishes (MUMF).

Material examined: MUMF/1587, 118.1 mm SL, MUMF/1588, 110.4 mm SL, MUMF/1589, 92.6 mm SL, Chatrickong river at Sanalok, 150 km from Imphal, 6.vi.1996; 2 unregistered specimens 98.5-108.2 mm SL, 20.viii.1998, coll. Keishing Selim.

Diagnosis: D. ii, 10; P. i, 13-15; V. i, 8; A. ii, 5-6; L.tr. 6/1/4; L1. 40-41; predorsal scales 14-15. The species is characterised by a lower lip slightly fringed, folded back and joined to isthmus by a narrow bridge; small tubercle above